

We claim:-

1. A storage-stable aqueous miniemulsion whose disperse phase
5 comprises the following components:

- a) at least one achiral nematic polymerizable monomer
selected from polyfunctionally polymerizable monomers,
monofunctionally polymerizable monomers or mixtures
10 thereof,
- b) at least one achiral nematic nonpolymerizable compound
and
- 15 c) at least one chiral di- or monofunctionally polymerizable
monomer.

2. A miniemulsion as claimed in claim 1, whose disperse phase
20 comprises the following components:

- a1) at least one achiral nematic difunctionally polymerizable
monomer;
- a2) at least two achiral nematic monofunctionally
25 polymerizable monomers;
- b) at least one achiral nematic nonpolymerizable compound
and
- 30 c) at least one chiral di- or monofunctionally polymerizable
monomer.

3. A miniemulsion as claimed in claim 1 or 2, the nematic
35 components having the same mesogenic group.

4. A miniemulsion as claimed in claim 2, whose disperse phase
comprises the following components:

- a1) an achiral nematic difunctionally polymerizable monomer,
40
- a2) two achiral nematic monofunctionally polymerizable
monomers,

30

a3) an achiral nematic difunctionally polymerizable monomer,

b) an achiral nematic nonpolymerizable compound and

5 c) a chiral di- or monofunctionally polymerizable monomer,

the nematic components a1), a2) and b) having the same mesogenic group and a3) having a mesogenic group differing from this.

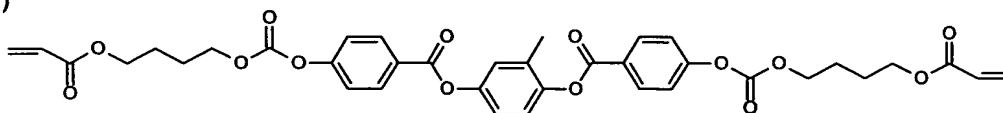
10

5. A miniemulsion as claimed in any of claims 2 to 4, wherein the mesogenic group of the nematic components a1), a2) and b) contains a substituted 1,4-dioxybenzene building block.

15 6. A miniemulsion as claimed in claim 5, whose disperse phase comprises the following components:

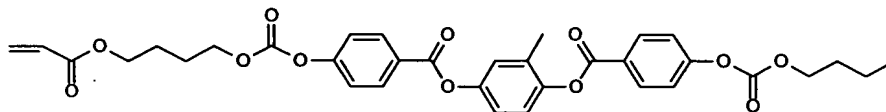
a1)

20



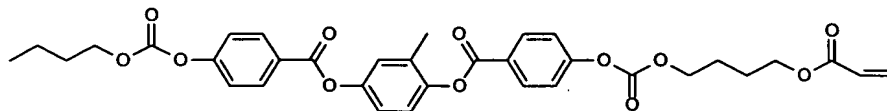
a2)

25



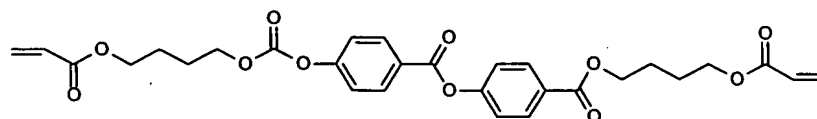
and

30



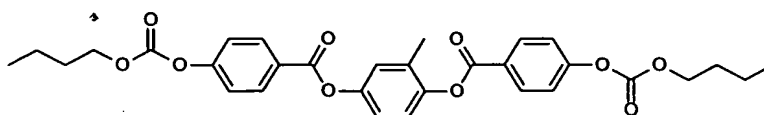
a3)

35



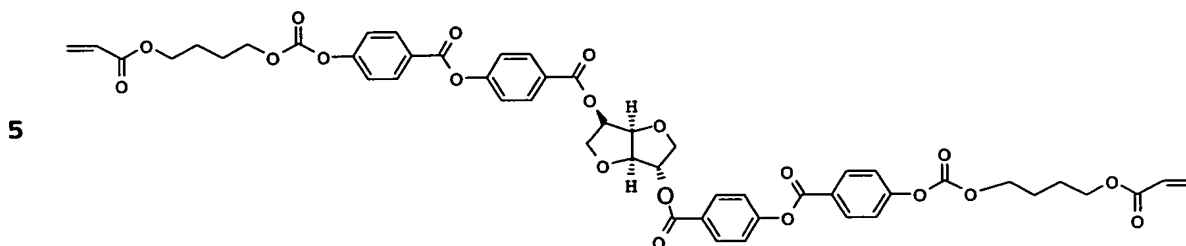
b)

40



45

c)



10

7. A miniemulsion as claimed in either of claims 5 and 6, which contains from 60 to 99.7 mol% of the components a1), a2) and b), from 0 to 39 mol% of the component a3) and from 0.3 to 10 mol% of the component c), the molar ratio of the components a1) : a2) : b) being from 1 : 1.5-3.0 : 0.5-1.5.
8. A miniemulsion as claimed in any of the preceding claims, which contains not more than 5% by weight, based on the total weight of the disperse phase, of assistants.
9. A miniemulsion as claimed in any of the preceding claims, having a volume average droplet size of the disperse phase of from 100 to 600 nm.
10. A process for the preparation of a storage-stable aqueous miniemulsion as claimed in any of the preceding claims, wherein all constituents of the disperse phase are first emulsified in a conventional manner and the conventional emulsion obtainable thereby is then treated with a high-pressure homogenizer.
11. A process as claimed in claim 10, wherein the mixture is emulsified at from 50 to 2 000 bar.
12. The use of a storage-stable aqueous miniemulsion as claimed in any of claims 1 to 9 for coating or printing on flexible and rigid substrates.
13. A process for coating or printing on flexible and rigid substrates, wherein a storage-stable aqueous miniemulsion as claimed in any of claims 1 to 9 is applied to the substrate, if required oriented, if required dried and polymerized.
14. An article provided with a coating or a print comprising a storage-stable aqueous miniemulsion as claimed in any of claims 1 to 9.

15. A two-component system containing two storage-stable aqueous miniemulsions as claimed in any of claims 1 to 9, wherein the concentrations of the components c) are different in each case with otherwise identical composition.

5

16. A two-component system as claimed in claim 15, the concentrations of component c) being chosen in each case so that the first emulsion gives an LC effect coating having a reflection wavelength of from 300 to 400 nm and the second
10 emulsion gives an LC effect coating having a reflection wavelength of from 600 to 800 nm.

17. The use of a two-component system as claimed in either of claims 15 and 16 for the production of an LC effect coating
15 having a defined reflection wavelength.

18. The use as claimed in claim 17 in printing processes.

20

25

30

35

40

45